

Outstanding Projects of 2004

Four projects in this year's annual progress report exemplify outstanding coordination, design, and implementation:

- Edson Fichter Nature Wetland Project
- Hailey Big Wood River Enhancement Project
- Mud Creek BMP Implementation Project
- Thomas Fork Stream Restoration Project

Summaries for each of these outstanding projects are presented in the following sections.

Edson Fichter Nature Wetland Project

Project Status

The Portneuf River is on the 303 (d) list as a water-quality limited river, high priority segment. Water quality has been compromised where intensive livestock and agricultural production have damaged riparian areas and increased erosion.

The Edson Fichter Nature Area (EFNA), a heavily visited nature area located on the south side of Pocatello, Idaho, adjacent to the Portneuf River, provides a unique opportunity to impact the water quality of the river and, at the same time, produce a public education program that will reach a large number of people. The goals of the Edson Fichter Nature Area water quality project include not only a construction component—restoring the river channel to its natural condition and creating a wetland that will reduce sediment loading—but also a public outreach component, accomplished by initiating a public education program on water quality.

Completed Tasks

Construction components completed include the following:

- The concrete diversion has been removed from the river, and the banks have been re-vegetated.
- Water rights (2.24 cubic feet per second) have been assigned to the area for wildlife use.
- A pump has been installed near the riverbank, and power has been extended underground to the site.
- All areas of the EFNA that were damaged or otherwise affected by construction have been rehabilitated, using a native grass seeding and, where appropriate, anchored with straw mats.
- Erosion control revetments have been installed in areas of extreme bank erosion. The revetments consist of large juniper trees anchored deep in the eroded bank. Willow shoots have been planted in the banks to help stabilize deposited silt and maintain the existing bank.
- A half-acre settling pond and the return flow stream with meanders and check-dams were constructed.
- Aquatic and riparian vegetation was planted. Species included: cattails, bulrush, water sedge, Baltic rush, golden currents, red-osier dogwood, water birch, and Pacific willows.
- The Three Rivers Resource Conservation and Development (RC&D) area has received an extension on their portion of the project to install a water quality monitoring station.

- Dr. Richard Inouye, of Idaho State University, conducted water-sampling tests in early July 2004 to determine if the project was functioning as desired. His results are attached. Even though the sampling was prior to the project being completed, he determined that "...the pond is functioning the way it's supposed to."

Public outreach components completed include implementation of a public outreach program, distribution of educational materials and a short course, erection of an information kiosk, delivery of presentations to groups and schools, and working with Pocatello Vision 12—a public access television station:

- “*Everything Needs Water to Live!!*”...is the theme for the water quality project at the EFNA. To get this message out to the public, 2,500 refrigerator magnets were developed, created, and distributed to various locations in Pocatello. The magnets feature a raindrop with a smiling face, the words, “Did you know... everything needs water to live?” and the logos of the Environmental Protection Agency (EPA), the Idaho Department of Environmental Quality (DEQ), and the Idaho Department of Fish and Game (IDFG). The magnets were distributed to the City of Pocatello water billing department, doctor’s offices, health clubs, coffee shops, restaurants, Idaho State University offices, local hospitals, and the DEQ, EPA, IDFG offices.
- In cooperation with the Idaho State University Museum of Natural History, the project donated a HACH® water pollution test kit, a portable lab that contains six different water tests for seven key parameters that can indicate pollution. The goal is to give students the opportunity to take “hands on” tests and compare those results with the monitoring equipment installed at the EFNA. The data from the monitoring stations is available on the Internet. .
- Kevin Laughlin, of the Cooperative Extension Systems in Idaho, developed a program, in partnership with Oregon and Washington, called the *Pacific Northwest Water Quality and Monitoring Program*—a four-part program that includes short-course basics and a variety of options for educators.
- An informative kiosk was placed near the settling pond at the EFNA. The title and theme of the kiosk is “*Did you know... everything needs water to live?*” The kiosk describes the 319 non-point source water quality project and its goals for water quality: filtering sediments and lowering water temperature for general stream health. The pathway to the kiosk and pond is being upgraded and benches are being added.
- Information programs were given to the Bannock County Historical Society, the Portneuf Watershed Group, Kiwanis, Rotary and the local schools, regarding the water quality project and its goals. A version of the kiosk interpretive sign was made for sponsors to use while giving presentations. Plastic versions of the sign were made for IDFG, DEQ, and EPA for their use in giving presentations.
- Pocatello Vision 12, the local access channel, has been filming the Edson Fichter Nature Area work and will air a program regarding project.

Summary

The project has proceeded with minimal problems and will be completed within the contract period. Public response to the work has been extremely positive.

Additional Information and Pictures

Additional information regarding the EFNA project, including data from water sampling and photographs showing project work, are provided in the following.

Suspended Solids Sampling at Edson Fichter Nature Area

Dr. Richard Inouye, of Idaho State University, conducted water sampling at EFNA on July 1 and 5 of 2004. On each date, water samples were taken at the inlet of the pond (the pipe from the river), the outlet of the pond, and the end of the channel that flows back into the river. Data from these samplings are displayed in Figure 2.

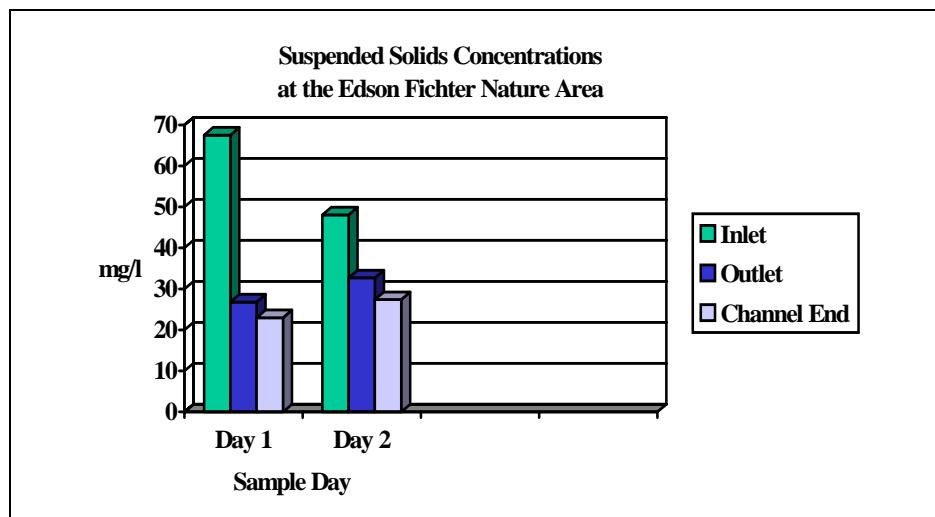


Figure 2. Results of water sampling conducted at Edson Fichter Nature Area

On both dates, the concentration of suspended solids was significantly lower in the outlet water than in the inlet water. On July 1, there was not a significant difference in the concentration at the outlet and the channel end. On July 5, the concentration at the channel end was significantly lower than at the outlet. Said Dr. Inouye, "I thought you would be interested in these data, which demonstrate that the pond is functioning the way it's supposed to."

Photographs



Figure 3. The settling pond was developed in an oxbow natural depression, where the Portneuf River once flowed.



Figure 4. After one growing season, the settling pond banks looked very good.



Figure 5. Inflow and outflow canals had to be constructed.



Figure 6. The inflow and outflow canals after one growing season.



Figure 7. This old irrigation diversion dam was removed.



Figure 8. The old diversion dam site now looks like this.



Figure 9. The water intake for the settling pond.



Figure 10. Part of the greenbelt path created for the public.



Figure 11. A small seating area was built so that environmental classes can be held for the public.



Figure 12. This kiosk explains the importance of good water quality for rivers.